

Competencies of ESD in SD study programs: The perceptions of relevant actors*

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INTRODUCTION

At the University of Bern, Switzerland we offer bachelor and master minor programs in Sustainable Development. Within the scope of a study program evaluation, we have defined **13 core competencies** of ESD in four categories, which we promote in our study programs (Table 1). The development of the study programs (bachelor 2013, master 2015) was based on the competence discussion at the time (Wiek, de Haan and Michelsen).

METHODS

The competencies on the curriculum and course level were derived from the study plan, the descriptions in the core teaching system (KSL) and the information provided in the information papers for the students. Online survey for the graduates (N=121), students (N=124) and internship supervisors (N=21): Assessment on a five-level Likert scale of the extent to which the competencies have been acquired, **their importance within the study programs and their relevance to the desired or current professional activity** Workshop for the lectures (N=19): Assessment in which of their courses these competencies are acquired or enhanced

MAIN FINDINGS AND CONCLUSION

None of the thirteen identified competencies **were considered unimportant** by the majority of the groups of people interviewed. **Comprehensible and target group oriented communication** is essential for working in SD occupational fields. The competence *discipline-independent knowledge of SD* was rated the least important by the graduates and students for both the study programs and the current or desired professional field. From the perspective of graduates, students and internship supervisors, it is **not knowledge (professional and methodological skills) that are important, but social, communication and personal competencies.**

From our point of view it is neither possible nor useful to rate the different competencies and the competency categories. All four competency categories are important. Even if some competencies are considered less important in the category *professional and methodological competences*, they provide a basis for valuing personal, social and communication competencies. Overall, **the results show that the promotion of personal, social and communication competencies is as important as professional and methodological competencies.** Likewise, certain competencies such as reflection skills should be promoted even more strongly in the study programs.

According to graduates, students and internship supervisors **social and communication competencies** as well as **personal competencies** are most important for SD study programs and for professional activities in SD occupational fields. However, the **promotion of all competencies is important** to equip SD students with skills that empower them to contribute to a transformation towards sustainability.

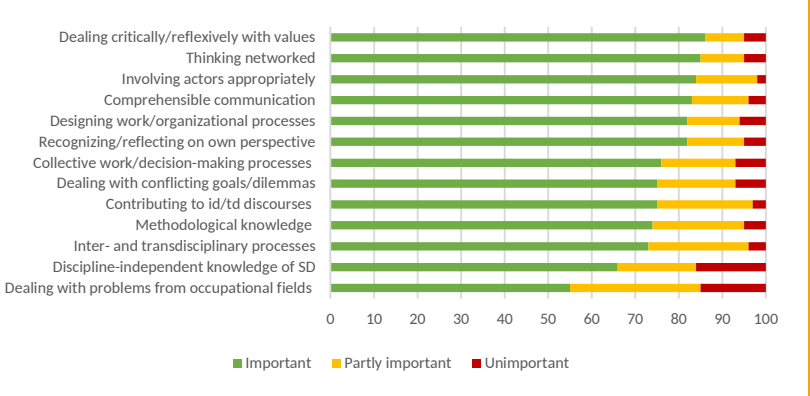


Fig. 1: Graduates: Importance of the competencies within the study programs

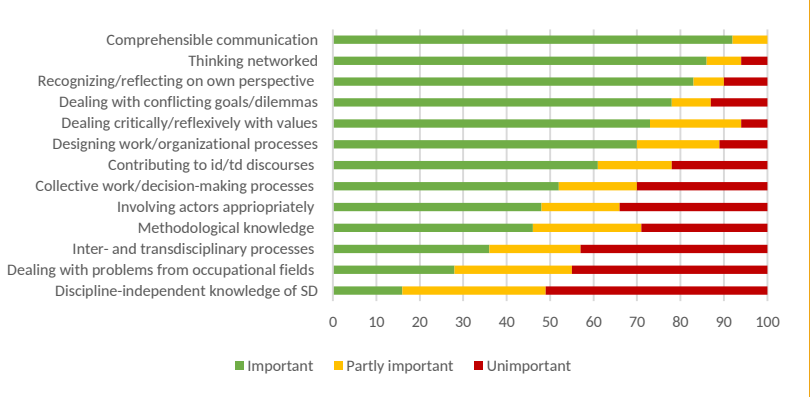


Fig. 2: Graduates: Importance of the competencies for the current professional activity

GRADUATES

- Of the six competencies that were considered important for the study programs by over 80% of the graduates, the majority are social and communication competencies (Figure 1).
- The competencies that are considered important by 76% to 73% of the respondents within the study programs belong to all four competence categories.
- The competences that are considered important within the study programs by less than 66% are *discipline-independent knowledge of SD* and *dealing scientifically with problems from occupational fields*.
- Most of the graduates interviewed declared that they work in trade & services and education, followed by public administration, higher education and research.
- Social and communicative skills are also considered most important for the current professional activities of the graduates (Fig. 2).
- Of the competencies considered important for the professional activity by less than 40% of the graduates, most relate to the category of action competencies.
- Our hypothesis that action competencies are considered most important by the graduates **could not be confirmed**.

Professional and methodological competencies	Discipline-independent knowledge of SD (including theories, models, concepts, understanding, challenges)
	Methodological knowledge as well as inter- and transdisciplinary procedures and working methods
	Thinking networked, foresighted and in terms of system dynamics
Personal competencies	Developing knowledge from other disciplines and to contribute to inter- and transdisciplinary discourses with disciplinary knowledge and to work on SD issues
	Recognizing and reflecting on one's own perspective on a situation or problem, putting oneself in other perspectives and taking these into account when solving problems
	Dealing with conflicting goals and decision-making dilemmas
Social and communication competencies	Dealing critically and reflexively with values, mission statements, theories and your own competences
	Designing work and organizational processes in a multidisciplinary team in a goal-oriented and efficient manner
	Involving actors appropriately from outside the scientific community in the research process
Action competencies	Comprehensible and target group oriented communication
	Designing, implementing and reflecting on inter- and transdisciplinary processes on socially relevant topics of SD
	Dealing scientifically with problems from corresponding occupational fields and contributing to the further development of occupational fields
	Participating in collective work and decision-making processes to transform society towards sustainability

Table 1: List of competencies of the bachelor and master programs in Sustainable Development at the University of Bern

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* ESD = Education for Sustainable Development / SD = Sustainable Development